**Answer Key**

**Station 1**

1. translation: (*x* – 2, y + 1); dilation: scale factor is 2
2. translation: (*x* + 3, y – 1); dilation: scale factor is 2.5 or 5/2
3. translation: (*x* – 5, y); dilation: scale factor is 2/3 or 0.67

Why are all circles similar?

Because one circle can be mapped onto another through a series of transformations (often translation and dilation), the circles are similar. (same shape)

**Station 2**

4. 90 5. 29 6. 180

7. 241 8. 270 9. 270

10. 180 11. 90 12. 119

13. 331 14. 209 15. 270

23. 6 in. 24. 7.5 ft. 25. 35 m

26. 18 in. 27. 8.2 m 28. 5 ft

**Station 3**

16. 12 in2 17. 12 ft2 18. 56 cm2

**Station 4**

1. 2.

3. 4.

(ex 3) (ex 4)

center: (0, 0); radius: 5 center: (-2, 1); radius: 2

(ex 5)

center: (0, -3); radius: 1

**Station 7**

1. 46 2. 81 3. 50 4. 118

5. 80 6. 100 9. 60 10. 95